

SPECIFICATION FOR APPROVAL

<p>CUSTOMER'S APPROVAL CHOP</p> <p>Approval's Condition: _____</p> <p>Approved Date: _____</p>

KINDLY RETURN A SET WITH YOUR COMPANY'S OFFICIAL STAMP ON APPROVAL OF THIS ITEM

CUSTOMER'S NAME: _____

CUSTOMER'S MODEL NO. : _____

CUSTOMER'S PART NO. : _____

DESCRIPTION: **EP13**

Semitel'S MODEL NO. : **EP13-154**

VERSION: **C**

DATE: **2017/6/2**

Attachments:

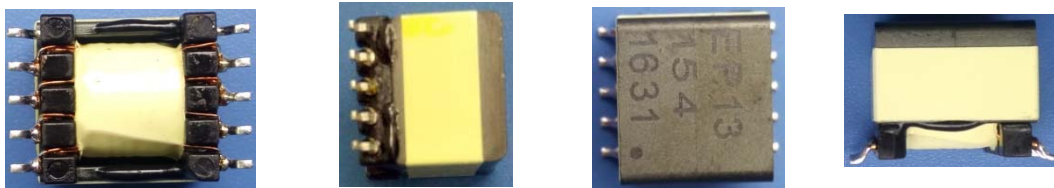
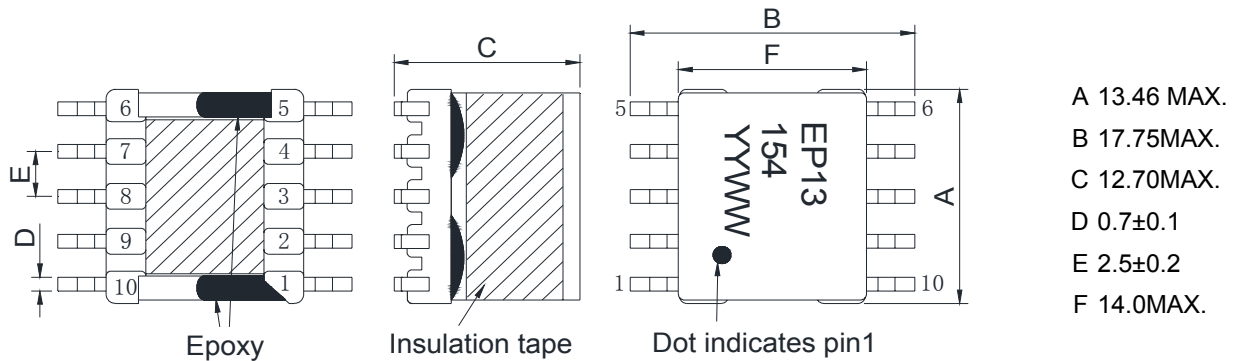
- Product Specification
- Sample Qty. :
- Test Data

Prepared By	Checked By	Approved By
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Product Specification

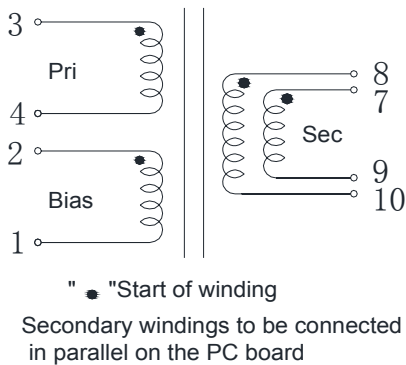
1. Physical Dimensions (Unit:mm)



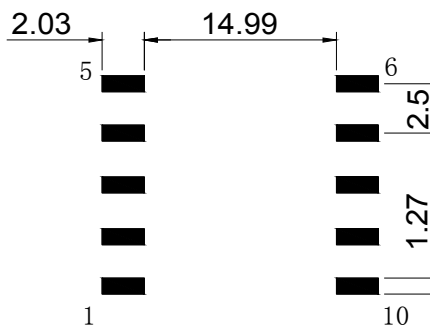
Notes:

- *Marking type is laser printing
- *YY: Year Code; WW: Week Code
- *Size B not including soldering tags
- *Coplanarity Requirement: Less than 0.10mm

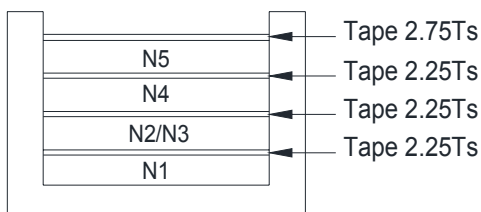
2. Connection



3. Recommended Pad Layout (Unit:mm)



4. Structure of Products



5. No of Turns & Wire Spec

No	No of Pin	Turns	Wire Spec
N1	3--4	30 TS	∅0.22 mm*1P P180
N2	8--10	15 TS	∅0.20 mm* 2P P180
N3	7--9	15 TS	∅0.20 mm* 2P P180
N4	3--4	30 TS	∅0.22 mm*1P P180
N5	2--1	15 TS	∅0.20 mm* 1P P180

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Product Specification

6. Electrical Characteristics

*Operation temperature:-40°C~+125°C

Items	Winding	Specifications	Test Conditions
Inductance	L(3-4)	127uH±10%	at 200KHz,0.2Vrms
LK-Inductance	LK(3-4) Tie other	0.65uH Max	at 200KHz,0.2Vrms
DCR	R(3-4)	199mΩ MAX	at 25°C
	R(2-1)	308mΩ MAX	
	R(7,8-9,10)	65mΩ MAX	
Turns ratio	Pri:Sec	1:0.5±2%	at 200KHz,0.2Vrms
	Pri:Bias	1:0.5±2%	
Hi-Pot	Pri. to Sec.	1500VAC	1mA. 6SEC.
	Pri. to CORE	600VAC	1mA. 6SEC.
	Sec. to CORE	600VAC	1mA. 6SEC.

7. Bill of Material

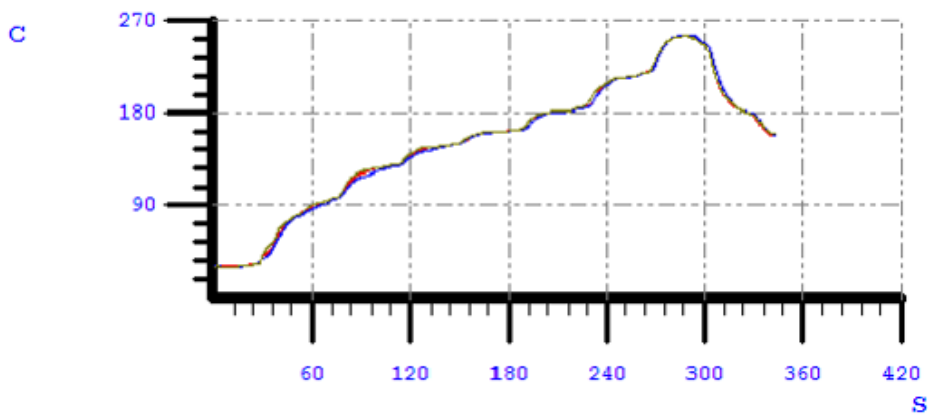
No	Items	Material Name	Manufacturer	Temperature	Rating	UL File No	SGS File No
1	Core	Ferrite core JP4A Ferrite core N42	JINNING or ACME	N/A	N/A	NIL	SHAEC1706088201 CE/2016/A4682D
2	Bobbin	PM9630	SUMITOMO (Sumidurez)or Equivalent	150°C	B	E41429	SHAEC1705662106
3	Copper Wire	Polyurethane wire	ELEKTRISOLA or Equivalent	180°C	H	E258243	CE/2017/40923
4	Insulation tape	1350F-1/1350F-2 YELLOW COLOR	3M or Equivalent	130°C	B	E17385	CE/2016/A2847
5	EPOXY	TH320	TIANHUAN or Equivalent	130°C	B	E257593	CANEC1619173404
6	EPOXY	EB-360	CHANGFENG or Equivalent	180°C	H	NIL	SHAEC1600075606
7	Solder	Lead free solder	HONGTAI or Equivalent	217°C	N/A	NIL	CANEC1610788406

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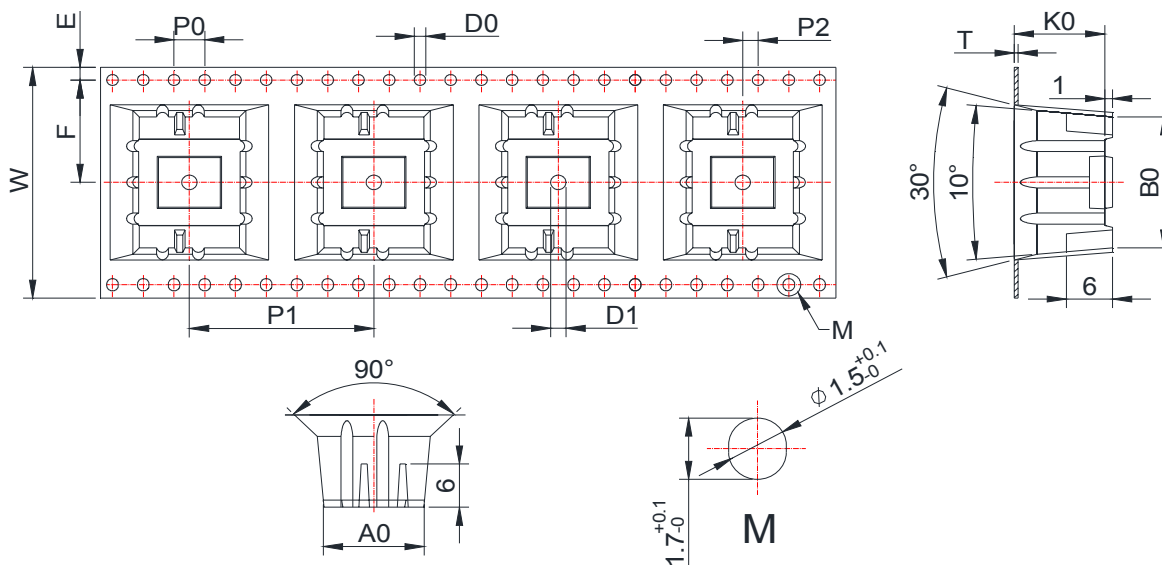
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8.Recommended Temperature Conditions of Air Reflow Soldering

Welder Test Line



9.Tape Dimensions (Unit:mm)



symbol	A0	B0	K0	P0	P1	P2
spec	13.0±0.3	18.2±0.3	11.8±0.3	4.0±0.1	24.0±0.15	2±0.1
symbol	W	T	E	F	D0	D1
spec	32.0±0.3	0.5±0.05	1.75±0.1	14.2±0.1	$\phi 1.5_{-0}^{+0.1}$	$\phi 2.0 \pm 0.1$

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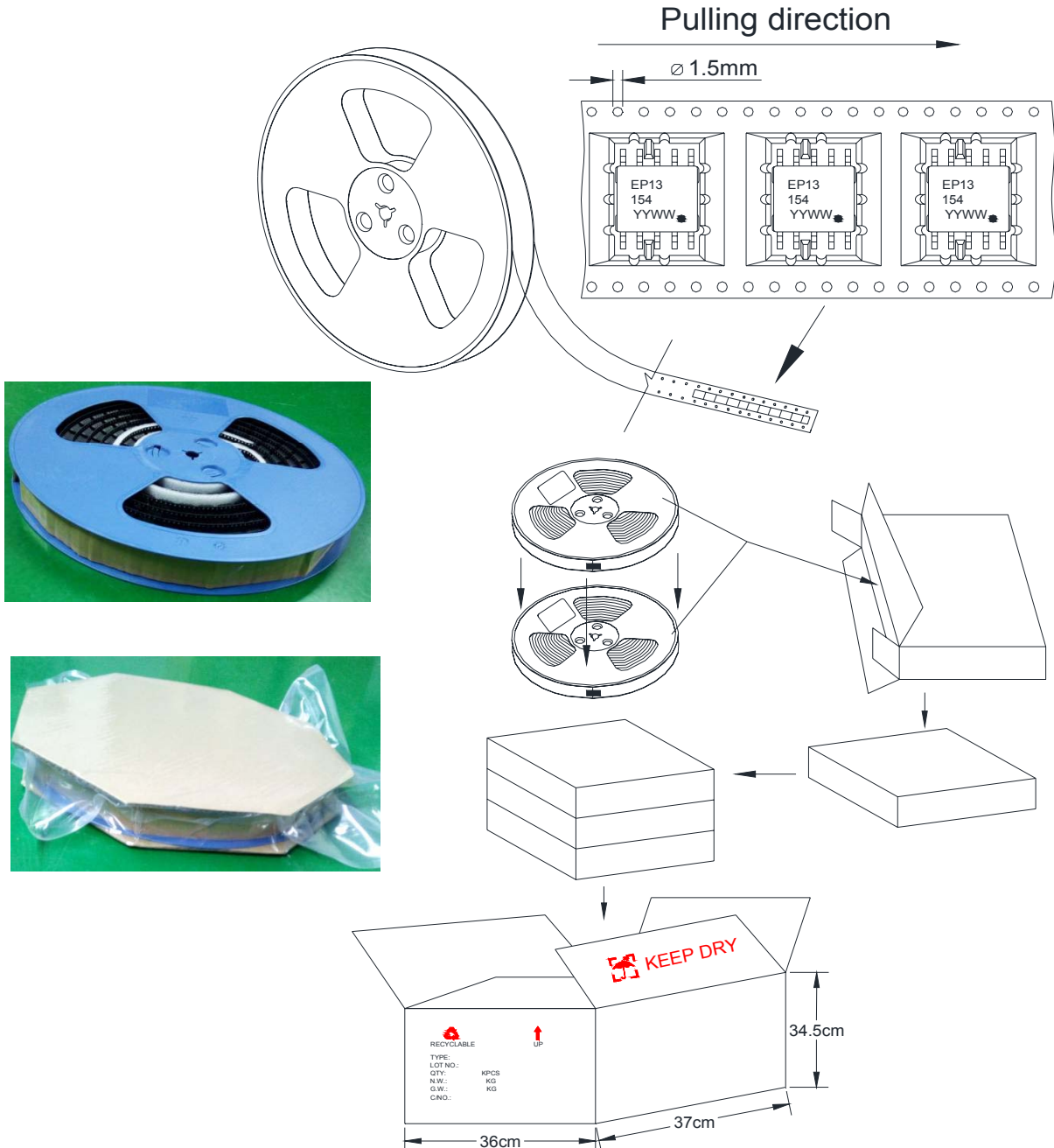
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10.Packing Request

*Every roll of the carrier tape can contain 180pcs products.

*Every small packing box contains two rolls of carrier tape. Total quantity: 360pcs.

*Every carton box contains 3 small packing boxes. Total quantity: 1080pcs.



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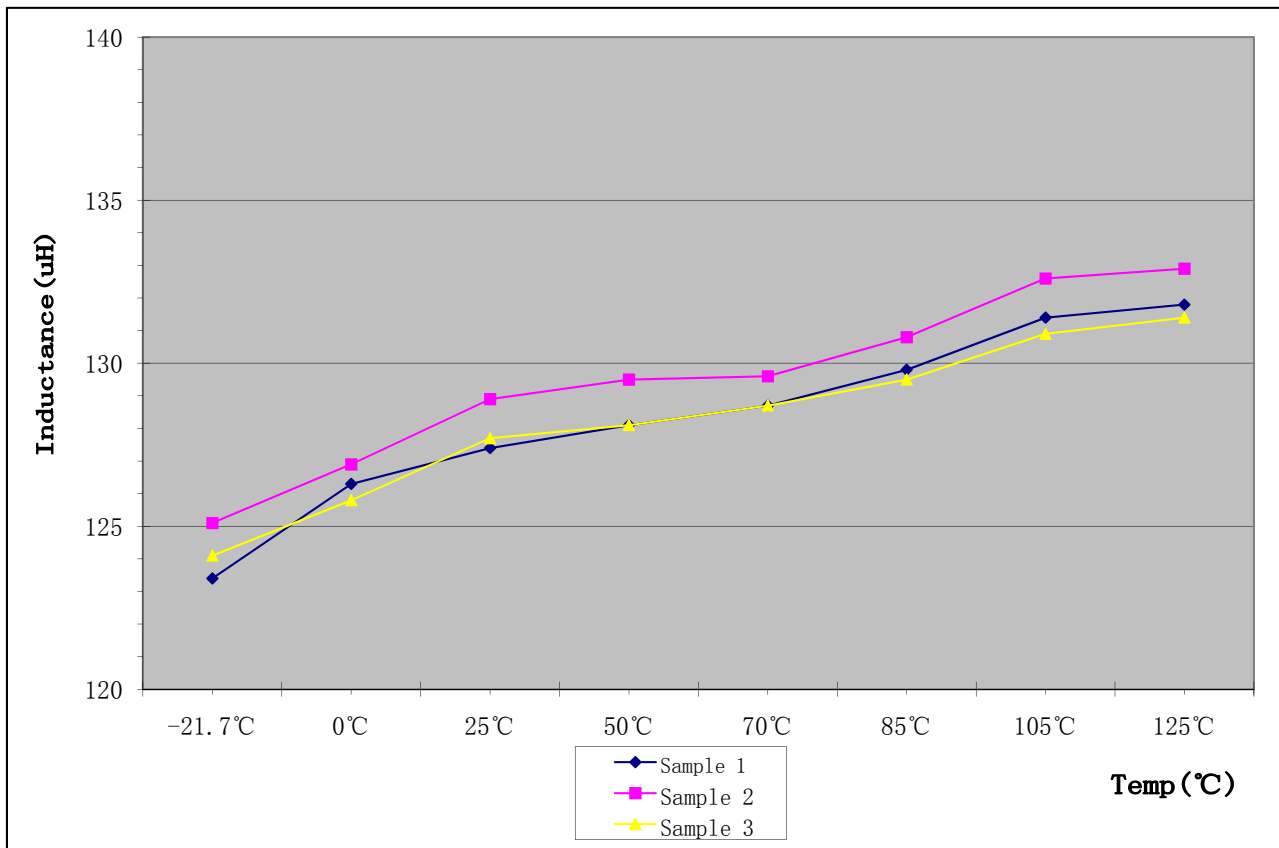
Test Report

Test Instruments										
	LCR METER 1062	3250	VR131			3250	CS2670A			
NO	Inductance	LK- Inductance	DCR			Turns ratio		Hi-Pot		
	at 200KHz,0.2Vrms	at 200KHz,0.2Vrms	at 25°C	at 25°C	at 25°C	at 200KHz,0.2Vrms		1mA. 6SEC.	1mA. 6SEC.	1mA. 6SEC.
	L(3-4)	LK(3-4) Tie other	R(3-4)	R(2-1)	R(7,8-9,10)	Pri:Sec	Pri:Bias	Pri. to Sec.	Pri. to CORE	Sec. to CORE
	127uH±10%	0.65uH Max	199mΩ MAX	308mΩ MAX	65mΩ MAX	1:0.5±2%	1:0.5±2%	1500VAC	600VAC	600VAC
1	133.70	0.257	88.10	164.40	41.70	Passed	Passed	No breakdown	No breakdown	No breakdown
2	130.50	0.228	83.70	165.50	41.90	Passed	Passed	No breakdown	No breakdown	No breakdown
3	128.80	0.278	84.60	164.80	41.40	Passed	Passed	No breakdown	No breakdown	No breakdown
4	134.60	0.237	83.90	164.30	41.50	Passed	Passed	No breakdown	No breakdown	No breakdown
5	135.50	0.249	84.60	166.60	41.30	Passed	Passed	No breakdown	No breakdown	No breakdown
MIN.	128.80	0.228	83.70	164.30	41.30					
MAX.	135.50	0.278	88.10	166.60	41.90					
AVG.	132.62	0.250	84.98	165.12	41.56					
Result	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed
Overall Dimensions Test							Measurement Tools: Caliper (Unit:mm)			
NO	A	B	C	D	E	F				
	13.46 MAX.	17.75MAX.	12.70MAX.	0.7±0.1	2.5±0.2	14.0MAX.				
1	12.77	17.31	11.97	0.70	2.48	13.30				
2	12.78	17.35	11.98	0.69	2.51	13.34				
3	12.78	17.32	11.98	0.69	2.48	13.33				
4	12.76	17.34	11.99	0.70	2.49	13.29				
5	12.79	17.32	12.02	0.69	2.52	13.31				
MIN.	12.76	17.31	11.97	0.69	2.48	13.29				
MAX.	12.79	17.35	12.02	0.70	2.52	13.34				
AVG.	12.78	17.33	11.99	0.69	2.50	13.31				
Result	Passed	Passed	Passed	Passed	Passed	Passed				
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***Inductance under different temperature characteristic**

*Operation frequency at 200KHz,0.2Vrms

Temp(°C)	-21.7°C	0°C	25°C	50°C	70°C	85°C	105°C	125°C
Sample 1	123.4	126.3	127.4	128.1	128.7	129.8	131.4	131.8
Sample 2	125.1	126.9	128.9	129.5	129.6	130.8	132.6	132.9
Sample 3	124.1	125.8	127.7	128.1	128.7	129.5	130.9	131.4



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